

CLAIMS

[1] An arc monitor system, which is used to locate a occurred place where an arc discharge occurred in an electric facility, comprising:

a plurality of monitor cameras that are arranged at a plurality of places in the electric facility;

an image processing device that individually processes images received from the monitor cameras;

a control logic section that controls the image processing device; and

an operation device that has a display section and an operation section, and is connected to the control logic section,

characterized in that the image processing device and the control logic section extract a change in the images received from the monitor cameras in response to a control signal generated from the electric facility on a occurrence of the arc discharge, and then locate the occurred place of the arc discharge.

[2] The arc monitor system according to claim 1, characterized in that the image processing device and the control logic section, on recognizing and extracting the arc discharge, successively process a plurality of frames of the image ranging from a frame obtained before occurrence of the arc discharge to a frame obtained after an extinction of the arc discharge, obtain a level and a center of gravity of the arc discharge in the successive images, and observe

transitions of the level and the center of gravity, thereby locating the occurred place of the arc discharge.

[3] The arc monitor system according to claim 1 or 2, characterized in that:

the monitor cameras are arranged to allow all places in the electric facility to be imaged by at least two of the monitor cameras; and

the image processing device and the control logic section, on the occurrence of the arc discharge, combine places located by means of the images captured by at least two of the monitor cameras, thereby calculating the occurred place by means of the triangulation.

[4] The arc monitor system according to any one of claims 1 to 3, characterized in that each of the monitor cameras comprises a near-infrared camera that captures an image by means of near-infrared light obtained by removing visible light.

[5] The arc monitor system according to any one of claims 1 to 4, characterized in that the image processing device and the control logic section observe a change in a remaining heat energy of the arc discharge immediately after the occurrence of the arc discharge.

[6] The arc monitor system according to any one of claims 1 to

5, comprising:

an image switching device that is connected to the image processing device; and

an image recording device and a monitor that are connected to the image switching device,

characterized in that the occurred place of the arc discharge located by the image processing device and the control logic section is displayed on the monitor and the operation device as a plan view, and is simultaneously recorded in the image recording device.

[7] The arc monitor system according to any one of claims 1 to 6, characterized in that each of the monitor cameras comprises a panning camera, is turned toward the occurred place of the arc discharge when the occurred place of the arc discharge is located, and then captures an image immediately after the occurrence of the arc discharge.

[8] The arc monitor system according to any one of claims 1 to 7, characterized in that the electric facility is a substation.